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ABSTRACT

In July 1994, College of the Canyons (COC) in California conducted several predictive validity studies of the College Board Assessment and Placement Services (APS) Reading Test. COC began using the 35-question objective format test in spring 1993. Fall 1993 test scores were used in determining the ability of the APS Reading Test to predict student success in both basic skills and college-level English courses offered at COC. Correlation coefficients were computed for each English course between the test scores and course grades with withdrawals converted to fails; and between test scores and course grades with withdrawals deleted. The median predictive validity value across all levels was .27, indicating a moderate linear relationship between test scores and course grades. This predictive validity coefficient value is below the .35 level recommended by the Chancellor's Office. In light of the myriad factors that influence grades other than placement tests, however, the obtained value of the predictive validity of the APS reading test was considered adequate to justify use of the test for placing students into reading courses at COC. Contains two references. (KP)

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College of the Canyons
Santa Clarita Community College District

PREDICTIVE VALIDITY STUDY OF THE APS READING TEST

July 1994

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JC 940 546

PREDICTIVE VALIDITY STUDY OF COLLEGE BOARD ASSESSMENT AND PLACEMENT SERVICES FOR COMMUNITY COLLEGES READING TEST

This report summarizes the predictive validity studies carried out in July 1994. The College Board APS Reading Test, a 35-question objective format test, was examined to determine its ability to predict student success in both basic skills and college level English courses offered at College of the Canyons.

The college began using the College Board APS tests in Spring 1993 and the data for these computations represent information from first-time students for three semesters (Spring 1993, Fall 1993 and Spring 1994).

Matriculation regulations require that community colleges which adopt a standardized test for making placement recommendations must qualify its use locally. The test must be a valid predictor of future course success given the unique features of the college curriculum, its instructors, and student population. Establishing a clear relationship between the test score and subsequent student performance in a particular course for which placement recommendations were made is predictive validity. A correlation of no less than +.35 is needed to conclude that the test instrument has sufficient predictive validity for advisement purposes.

Descriptive Statistics. The data collected for this study are summarized in Table 1. The mean score and the coefficient of skewness provide a clue about the relative degree of difficulty of the test. Positively skewed score distributions indicate that sampled students tend to find the test difficult. Thus, the APS Reading Test was clearly more difficult for students in English 034 than was the test for students in English 101.

Table 1.
Descriptive Statistics for APS Reading Test, By Course Level

Test	Course	N	Mean	Median	Standard Deviation	Skewness
Reading	Engl. 010	15	8.13	8.00	4.61	1.04
	Engl. 034	88	13.70	14.00	3.12	1.27
	Engl. 080	70	19.19	19.00	3.56	-0.05
	Engl. 101	40	26.18	27.00	3.59	-1.01

Predictive Validity. The primary index of the strength of the relationship between test scores (predictor) and course grades (criterion) is the predictive validity coefficient, or the correlation between predictor and criterion.

Two correlation coefficients indicating predictive validity were computed for each course -- one between the test scores and course grades with all withdrawals (Ws) converted to Fail (F), and the second between the test scores and course grades with withdrawals deleted from the analysis. The resulting correlations are shown in Table 2 on the following page. Since the distribution of scores was restricted because the placement test scores were in use, the correlation values were adjusted by using a correction for restriction or range. Fall 1993 norms were used, with computations based on the entire population of tested students (N=1,644). The correction yields a better indication of the relationship between scores and grades by adjusting the value of the correlation coefficient to what it would be if the distribution of the predictor (APS test score) was unrestricted.

Table 2.
Relationship Between APS Reading Test Scores and Grades, by Course

Test	Course	r-Score to Grade W=Failure		Ws Excluded	
Reading	Engl. 010	.72	(15)	.64	(9)
	Engl. 034	.36	(88)	.36	(68)
	Engl. 080	.14	(70)	.18	(62)
	Engl. 101	-.07	(39)	-.64	(31)

RESULTS AND DISCUSSION

APS Reading Test. **The median predictive validity value across all levels is .27,** ranging from a low of -.64 to a high of .72. The correlation indicates a moderate linear relationship between the placement test scores and course grades.

The predictive validity coefficient value of .27 is below the .35 level recommended by the Chancellor's Office, but is within the range reasonably expected for placement tests. There is a broad range of factors that are not, and can not be, tapped by the test, but which are related to performance in class. Among these are an assortment of individual difference variables, motivation level, and differences in background and experiences. Because there are such a complex array of factors that interact to determine performance in classes, many of which are non-academic, it is not reasonable to expect placement tests to be very strongly related to course grades. Indeed, the test's technical manual lists a median predictive validity of .28, with a range from -.01 to a high of .51 (based on 64 validity studies, each of which had 100 students).

The reader is reminded that these correlations apply only to the ability of the APS tests to predict the final course grade performance of first-time college students.

CONCLUSIONS

APS Reading Test. In light of the myriad of factors that impact course grades other than the specific skills measured by the test, and the unreliability of the criterion (course grades), the obtained value of the predictive validity of the APS Reading Test is adequate to justify use of the test for placing students into reading courses at College of the Canyons.

The college should continue to evaluate the APS Reading Test and multiple measures which may provide the most accurate advice possible when directing students into classes.

References:

The College Board, Assessment and Placement Services for Community Colleges, College Entrance Examination Board, 1990.

CAPP Associates, Assessment and Placement Research Software: User's Guide, Version 2.0, CAPP Associates, 1994.